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REMARKS

The Office action has been carefully considered. The Office action rejected claims 1-7, 10-19, 21-25, 27-39, and 43-47 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,907,704 to Gudmundson et al. ("Gudmundson"). Further, the Office action rejected claims 8 and 20 under 35 U.S.C. § 103(a) as being unpatentable over Gudmundson in view of U.S. Patent No. 6,085,220 to Courts et al. ("Courts"). Further yet, the Office action rejected claims 9, 26, and 40-42 under 35 U.S.C. § 103(a) as being unpatentable over Gudmundson in view of U.S. Patent No. 6,230,171 to Pacifici et al. ("Pacifici"). Finally, the Office action rejected claims 17 and 30 under 35 U.S.C. §112, second paragraph for lack of antecedent basis and rejected claims 1, 17, and 30 under 35 U.S.C. §112, second paragraph for lack of support in the specification. Applicants have amended claims 1, 17, and 30 to obviate the rejections based on §112. Regarding the other rejections, applicants respectfully disagree.

By present amendment, claims 1, 17, and 30 have been amended for clarification and not in view of the prior art. Applicants submit that the claims as filed were patentable over the prior art of record, and that the amendments herein are for purposes of clarifying the claims and/or for expediting allowance of the claims and not for reasons related to patentability. Reconsideration is respectfully requested.

Prior to discussing reasons why applicants believe that the claims in this application are clearly allowable in view of the teachings of the cited and applied references, a brief description of the present invention is presented.

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The present invention is directed, generally, towards behaviors of elements

in a document, in which an encapsulated component (e.g., object), external to the

document, may be invoked to change the behavior (e.g., effects such as style,

behavior, and/or display) of the associated element in the document. That is, the

current content (elements) of the document may be modified by effects (behaviors).

The associations between elements and external behavior components may be

maintained in cascading style sheets, inline with the elements, and/or in various

formats. When the document is provided to a renderer and the renderer parses the

element in the document, the renderer may access the associated external

component to modify a behavior of the page image, by running code such as

script-based code.

Further, each behavior component may be external to the document and its

content. As a result, for example, a library of consistent, reusable behaviors may

be defined and made available for use in designing and authoring many different

web pages with different content. Similar to a library of functions, the same

behavior component may be invoked multiple times in multiple instances as

needed from two or more different documents and may be interfaced with elements

from different documents consistently, without requiring customization and so forth.

Thus, not only may a single behavior be shared among elements of a document,

but a behavior component may also be reused multiple times across other

documents.

Note that the above description is for example and informational purposes

only, and should not be used to interpret the claims, which are discussed below.

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Rejections under §103 in view of Gudmundson

Turning to the obviousness rejections, amended claim 1 recites a computer-readable medium having computer-executable instructions, comprising, receiving a document having an element thereon, the document including information associating the element with an external component that is encapsulated and external to the document such that multiple instances of the external component may be used with a plurality of different documents including the document having the element thereon, rendering a page image corresponding to at least part of the document, the page image including a representation of the element; and accessing the external component for determining a behavior of the representation of the element rendered on the page image.

The Office action rejected claim 1 as being unpatentable over Gudmundson. The Office action contends that Gudmundson teaches the recitations of claim 1 and subsequently refers to the rejection of claim 17 for the specific references to Gudmundson. More specifically, the Office action contends that Gudmundson teaches encapsulating code in an external component for affecting the behavior of elements including elements of different documents. Column 9, lines 1-39 of Gudmundson is referenced. Further, the Office action contends that Gudmundson teaches inserting an element into a document and providing the document to a renderer. Column 11, lines 8-21 of Gudmundson is referenced. Still further, the Office action contends that Gudmundson teaches rendering a page image corresponding to at least part of the document, the page image including a

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representation of the element, and accessing the external component for

determining a behavior of the representation of the element rendered on the page

image. Column 13, lines 24-59, and column 8, lines 39-45 of Gudmundson are

referenced. The Office action does acknowledge that Gudmundson does not teach

attaching a reference to the document. However, the Office action contends this

recitation would have been obvious to a person skilled in the art at the time the

invention was made because the teachings of Gudmundson are easily modified to

allow the element in the document to possess certain inherent characteristics

relating to that external component. Applicants respectfully disagree.

To establish *prima facie* obviousness of a claimed invention, all of the claim

recitations must be taught or suggested by the prior art; (*In re Royka*, 490 F.2d

981, 180 USPQ 580 (CCPA 1974)), and "all words in a claim must be considered in

judging the patentability of that claim against the prior art;" (*In re Wilson*, 424 F.2d

1382, 1385, 165 USPQ 494, 496 (CCPA 1970)). Further, if prior art, in any

material respect teaches away from the claimed invention, the art cannot be used

to support an obviousness rejection. *In re Geisler*, 116 F.3d 1465, 1471, 43

USPQ2d 1362, 1366 (Fed Cir. 1997). Moreover, if a modification would render a

reference unsatisfactory for its intended purpose, the suggested modification /

combination is impermissible. See MPEP § 2143.01

In general, Gudmundson teaches a method and system for authoring

multimedia titles having the ability to traverse environments. In specific,

Gudmundson teaches a method for using encapsulated objects that are

programmed to be free of environment variables such that the objects may be

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freely linked to different elements and transported to elements in any environment.

To do so, certain behavior elements may be encapsulated as an object that may be

transported and attached to other objects, object containers, modifiers and/or

elements.

For example, an encapsulated object in Gudmundson may encode a

behavior for presenting a pop-up menu when a pointing device "mouses over" an

element, *i.e.*, a picture. Thus, the encapsulated object (*i.e.*, the behavior) itself is

transported to the environment of the element and linked to the element through

object inheritance. The element itself contains the necessary code that the

encapsulated object needs in order to render a pop-up menu in the environment of

the element. Then, if the encapsulated object is needed elsewhere, it is unlinked

from the element, transported to a different environment and then linked to a

different element in the different environment. Thus, the encapsulated object is

reused in a different environment, but may only be used in one environment at a

time since the encapsulated object must remain linked with the element in order to

use the environment variables known only to the element.

Quite differently, the present invention is directed to a method and system

for providing an external behavior component to a plurality of documents that may

be provided at the same time. For example, a library of consistent, reusable

behaviors may be defined and made available for use in designing and authoring

many different web pages with different content. Similar to a library of functions,

the same behavior component may be invoked as needed from different

documents and interfaced with consistently. Thus, not only may a single behavior

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be instantiated and shared among elements of one document, but a behavior component may be instantiated multiple times and reused across elements in other documents.

Applicants submit that the Office action has failed to establish *prima facie* obviousness as a matter of law with respect to the claimed subject matter. Specifically, amended claim 1 recites receiving a document having an element thereon, the document including information associating the element with an external component that is encapsulated and external to the document such that multiple instances of the external component may be used with a plurality of different documents including the document having the element thereon. As discussed above, Gudmundson teaches providing an encapsulated element that may be transported as needed across different environments. An encapsulated behavior element that is moved to different environments when needed is not the same as an external component that may be instantiated multiple times and associated, by reference, with a plurality of different documents. Being only concerned with different environments, Gudmundson simply does not teach or even suggest the concept of multiple instantiations of the same external component having the ability to be used by different elements in different documents.

Additionally, the Office action acknowledges that Gudmundson does not teach referencing the external component in the document. Of course, Gudmundson does not teach this because the encapsulated component itself attaches itself to the document and environment to which it is transported. That is,

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there is absolutely no need to have an external reference because there is nothing
"external" to reference. As a result, it is simply not logical to suggest that it would
have been obvious to a person skilled in the art at the time the invention was made
to include an external reference in order to allow elements in the document to
possess certain inherent characteristics relating to the external component. By
attaching the encapsulated component directly to the document (through object
inheritance) the need for any kind of external reference becomes irrelevant.

Further, if anything, Gudmundson teaches away from the present invention
in that the encapsulated element necessarily requires additional variables provided
by a linked element in order to function correctly. Thus, the encapsulated element
cannot possibly be used by another element in a different document because the
variables provided to the encapsulated element by two different elements would
conflict with each other.

For at least these reasons, applicants submit that claim 1 is patentable over
Gudmundson whether considered alone or in any permissible combination with any
prior art of record.

Applicants respectfully submit that dependent claims 2-7 and 10-16, by
similar analysis, are allowable. Each of these claims depends either directly or
indirectly from claim 1 and consequently includes the recitations of independent
claim 1. As discussed above, Gudmundson, whether considered alone or in any
permissible combination at law, fails to teach or suggest the recitations of claim 1
and therefore these claims are also allowable over the prior art of record. In

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addition to the recitations of claim 1 noted above, each of these dependent claims
includes additional patentable elements.

For example, claim 2 recites receiving an event, and wherein accessing the
external component is performed in response to the event. As discussed above,
Gudmundson does not show any appreciation or understanding of external
referencing and thus cannot possibly access and external component in response
to an event and consequently fails to teach or suggest the recitations of claim 2.
Applicants submit that claim 2 is allowable over the prior art of record for at least
this additional reason.

Turning to the next independent claim, amended claim 17 recites a method
of providing dynamic effects to an HTML document, comprising, encapsulating
code in an external component that may affect a behavior of one or more elements,
including elements of different documents, inserting an element into a document,
attaching a reference in the document to associate the element with an instance of
the external component, such that another instance of the element may be
referenced by a different document, and providing the document to a renderer.

The Office action rejected claim 17 as being unpatentable over
Gudmundson. More specifically, the Office action contends that Gudmundson
teaches encapsulating code in an external component for affecting the behavior of
elements including elements of different documents. Column 9, lines 1-39 of
Gudmundson is referenced. Further, the Office action contends that Gudmundson
teaches inserting an element into a document and providing the document to a
renderer. Column 11, lines 8-21 of Gudmundson is referenced. The Office action

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does acknowledge that Gudmundson does not teach attaching a reference to the

document. However, the Office action contends this recitation would have been

obvious to a person skilled in the art at the time the invention was made because

the teachings of Gudmundson are easily modified to allow the element in the

document to possess certain inherent characteristics relating to that to that external

component. Applicants respectfully disagree.

As discussed above, the Office action has failed to establish *prima facie*

obviousness as a matter of law with respect to any of the claimed subject matter.

Specifically, claim 17 recites attaching a reference in the document to associate the

element with an instance of the external component, such that another instance of

the element may be referenced by a different document. As discussed above,

Gudmundson teaches providing an encapsulated element that may be reused

across different environments. An encapsulated behavior element that is moved to

different environments when needed is not the same as an external component

that may be instantiated multiple times and associated, by reference, with a

plurality of different documents. Being only concerned with different environments,

Gudmundson simply does not teach or even suggest the concept of multiple

instantiations of the same external component having the ability to be used by

different elements in different documents.

Additionally, the Office action acknowledges that Gudmundson does not

teach referencing the external component in the document. Of course,

Gudmundson does not teach this because the encapsulated component itself

attaches itself to the document and environment to which it is transported. That is,

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there is absolutely no need to have an external reference because there is nothing

"external" to reference. As a result, it is simply not logical to suggest that it would

have been obvious to a person skilled in the art at the time the invention was made

to include an external reference in order to allow elements in the document to

possess certain inherent characteristics relating to the external component. By

attaching the encapsulated component directly to the document (through object

inheritance) the need for any kind of external reference becomes irrelevant.

Further, if anything, Gudmundson teaches away from the present invention

in that the encapsulated element necessarily requires additional variables provided

by a linked element in order to function correctly. Thus, the encapsulated element

cannot possibly be used by another element in a different document because the

variables provided to the encapsulated element by two different elements would

conflict with each other.

For at least these reasons, applicants submit that claim 17 is patentable

over Gudmundson whether considered alone or in any permissible combination at

law.

Applicants respectfully submit that dependent claims 18-19, 21-25 and 27-

29, by similar analysis, are allowable. Each of these claims depends either directly

or indirectly from claim 17 and consequently includes the recitations of independent

claim 17. As discussed above, Gudmundson, whether considered alone or in any

permissible combination at law, fails to teach or suggest the recitations of claim 17

and therefore these claims are also allowable over the prior art of record. In

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addition to the recitations of claim 17 noted above, each of these dependent claims
includes additional patentable elements.

For example, claim 19 recites rendering a page image from the document,
accessing the external component, and modifying a representation of the element
based on the code in the external component. As discussed above, Gudmundson
does not show any appreciation or understanding of external referencing and thus
cannot possibly access and external component in response to an event and
consequently fails to teach or suggest the recitations of claim 19. Applicants
submit that claim 19 is allowable over the prior art of record for at least this
additional reason.

Turning to the last independent claim, amended claim 30 recites in a
computer system, a system for rendering page images on a display, comprising an
external component encapsulating code for modifying a behavior of one or more
elements, the external component operable to be instantiated multiple times and
operable to modify elements in a plurality of different documents, and a renderer
connected to the display for rendering page images, the renderer receiving a
document having an element specified therein and information associating the
element with the external component, the renderer rendering a page image
corresponding to the document and accessing the external component for
modifying the page image.

The Office action rejected claim 30 as being unpatentable over
Gudmundson. The Office action contends that Gudmundson teaches the

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recitations of claim 30 and subsequently refers to the rejection of claims 1 and 17

for the specific cites to Gudmundson. Applicants respectfully disagree.

Again, as shown above, the Office action has failed to establish *prima facie*

obviousness as a matter of law with respect to any of the claimed subject matter.

Specifically, claim 30 recites an external component encapsulating code for

modifying a behavior of one or more elements, the external component operable

to be instantiated multiple times and operable to modify elements in a plurality of

different documents. As discussed above, Gudmundson teaches providing an

encapsulated element that may be transported across different environments. An

encapsulated behavior element that is moved to different environments when

needed is not the same as an external component may be used instantiated

multiple times and associated, by reference, with a plurality of different documents.

Being only concerned with different environments, Gudmundson simply does not

teach or even suggest the concept of multiple instantiations of the same external

component having the ability to be used by different elements in different

documents.

Additionally, the Office action acknowledges that Gudmundson does not

teach referencing the external component in the document. As detailed previously,

Gudmundson does not teach this because the encapsulated component itself

attaches itself to the document and environment to which it is transported.

Consequently, it is simply not logical to suggest that it would have been obvious to

a person skilled in the art at the time the invention was made to include an external

reference in order to allow elements in the document to possess certain inherent

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characteristics relating to the external component. By attaching the encapsulated

component directly to the document (through object inheritance) the need for any

kind of external reference becomes irrelevant.

Further, if anything, Gudmundson teaches away from the present invention

in that the encapsulated element necessarily requires additional variables provided

by a linked element in order to function correctly. For at least these reasons,

applicants submit that claim 30 is patentable over Gudmundson whether

considered alone or in any permissible combination of the prior art of record.

Applicants respectfully submit that dependent claims 31-39 and 43-47, by

similar analysis, are allowable. Each of these claims depends either directly or

indirectly from claim 30 and consequently includes the recitations of independent

claim 30. As discussed above, Gudmundson, whether considered alone or in any

permissible combination at law, fails to teach or suggest the recitations of claim 30

and therefore these claims are also allowable over the prior art of record. In

addition to the recitations of claim 30 noted above, each of these dependent claims

includes additional patentable elements.

Rejections under §103 in view of Gudmundson and Courts

The Office action rejected claims 8 and 20 as unpatentable over

Gudmundson in view of Courts. Applicants respectfully disagree.

Claim 8 recites the external component comprises a COM object, and

wherein accessing the external component for determining a behavior of the

representation of the other element includes accessing another instance of the

object. The Office action acknowledges that Gudmundson does not teach a COM

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object, but contends that Courts does teach a COM object and the combination of the teachings of Gudmundson and Courts would render the recitations of claim 8 obvious. Applicants respectfully disagree and point out again that Gudmundson does not show any appreciation or understanding of object instantiation and/or external referencing and sharing of encapsulated components and consequently fails to teach or suggest the recitations of claim 8. Applicants submit that claim 8 is allowable over the prior art of record at least by virtue of its dependence from claim 1 and for at least this additional reason.

Claim 20 recites the external component is a COM object, and wherein accessing the external component includes calling an interface of the COM object. The Office action acknowledges that Gudmundson does not teach a COM object, but contends that Courts does teach a COM object and the combination of the teachings of Gudmundson and Courts would render the recitations of claim 20 obvious. Applicants respectfully disagree and point out again that Gudmundson does not show any appreciation or understanding of object instantiation and/or external referencing and sharing of encapsulated components and consequently fails to teach or suggest the recitations of claim 20. Applicants submit that claim 20 is allowable over the prior art of record at least by virtue of its dependence from claim 17 and for at least this additional reason.

<u>Rejections under §103 in view of Gudmundson and Pacifici</u>

The Office action rejected claims 9, 26, and 40-42 as unpatentable over Gudmundson in view of Pacifici. The Office action acknowledges that Gudmundson does not teach maintaining an external component in a cascading

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style sheet. The Office action, however, contends that Pacifici does teach this

concept and that the combination of Gudmunson and Pacifici renders claims 9, 26,

and 40-42 obvious. Applicants respectfully disagree.

As discussed above, Gudmundson does not teach and even teaches away

from the concept of externally referencing a behavior component. Thus, the

combination of Gudmundson and Pacifici cannot be construed to not teach using

external components in a cascading style sheet. Applicants submit that claims 9,

26, and 40-42 are allowable over the prior art of record at least by virtue of their

dependence from independent claims 1, 17, and 30, respectively, and for at least

these additional reasons.

For at least these reasons, applicants submit that all the claims are

patentable over the prior art of record. Reconsideration and withdrawal of the

rejections in the Office action is respectfully requested and early allowance of this
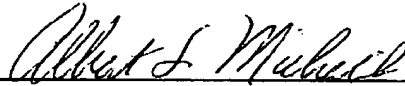
application is earnestly solicited.

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CONCLUSION

In view of the foregoing remarks, it is respectfully submitted that claims 1-47

are patentable over the prior art of record, and that the application is in good and

proper form for allowance. A favorable action on the part of the Examiner is

earnestly solicited.

If in the opinion of the Examiner a telephone conference would expedite the

prosecution of the subject application, the Examiner is invited to call the

undersigned attorney at (425) 836-3030.

Respectfully submitted,

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